#### REFERENCES

EASA, P.S. & S.C. BASHA (1995): A survey on the habitat and distribution of stream fishes in the Kerala part of Nilgiri Biosphere Reserve. KFRI Research report No. 104. Peechi, Thrissur.

REMA DEVI, K., K.G. EMILIYAMMA & R.S. LALMOHAN (1996): Extension of range of *Pangio goaensis* (Cypriniformes: Cobitidae) to the Chaliyar drainage of Kerala. J. South Asian nat. Hist. 3(1): 19-22. TALWAR, P.K. & A.G. JHINGRAN (1991): Inland fishes of India and adjacent countries. Oxford & IBH Publishing Co., New Delhi.

Tilak, R. (1973): A study of the freshwater and estuarine fishes of Goa. 1. Acanthophthalmus goaensis, A new Cobitid from Goa, with notes on Zenarchopterus striga (Blyth). J. Inland Fish. Soc. India 4: 61-68.

# 20. RECORD OF THE BARB BARBODUS CARNATICUS (CYPRINIDAE : CYPRINIFORMES) FROM THE STREAMS OF EASTERN GHATS, OF TAMIL NADU.

The large barb Barbodus carnaticus is endemic to Western Ghats, being known only from the Cauvery drainages at the base of the Nilgiris, Wynaad and also from Karnataka (Talwar and Jhingran, 1991; Menon, 1992; Arunachalam et al., 1998). It grows to a maximum size of about 60 cm in length and 12 kg in weight (Menon, 1992); in our ongoing Western Ghats biodiversity programme we recorded specimens from 25 cm to 40 cm in length (0.5-3 kg in weight). During a recent survey, we collected a fair number of specimens of B. carnaticus from an unnamed stream near Arapaleeswar temple, and also some unnamed streams in Kolli hills of Eastern Ghats, Tamil Nadu. The literature on Eastern Ghats (Talwar and Jhingran, 1991; Misra, 1938; Lazarus et al., 1988; Rema Devi, 1992) shows that this species was not reported from this region by earlier workers. Till now, the distribution of the species was Cauvery drainage systems of Western Ghats (Molur and Walker, 1998). The present record shows its extension to Eastern Ghats, indicating affinities between Western Ghats and Eastern Ghats of Tamil Nadu.

#### DESCRIPTION

D IV/8; P 15; V 9; A II/5; C 19; Ltr. Scales 5, 3 ½. Body elongate, dorsal profile more

convex than ventral; its depth 2.8 to 3.2 times in standard length. Head length 4.0 to 4.25 times in head. Mouth subterminal; lips moderately fleshy. Barbels two pairs, maxillary pair longer than rostral pair. Dorsal fin inserted midway between tip of snout and caudal base. Last undivided dorsal ray osseous, strong. Lateral line complete with 30-32 scales. Colour in live specimens dark olivaceous green on back, fading to dull white with gold on flanks and abdomen. After preservation in formaline, light brown on dorsal side and flanks, abdomen pale yellow.

### **Habitat and Ecology**

B. carnaticus prefers large pools and riffle habitats of rapid rivers and streams. Adults prefer pools, hiding in undercutting of bedrock and boulders, while juveniles prefer riffle habitats. It feeds mostly on benthic substrates. It has been introduced into reservoirs of Periyar and Cauvery drainage systems.

#### Distribution

Found in Cauvery, Bhavani, Moyar rivers in Tamil Nadu; Periyar reservoir (introduced) in Kerala (Menon, 1992) and Hemavathi river of Karnataka (Arunachalam et al., 1998). We collected this species for the first time from an unnamed stream near Arapaleeswar temple in Kolli hills of Eastern Ghats, Tamil Nadu.

#### **ACKNOWLEDGEMENTS**

The second author (JAJ) is grateful to the Council of Scientific and Industrial Research (CSIR), New Delhi, for financial support.

December 26, 1998 M. ARUNACHALAM J.A. JOHNSON

Sri Paramakalyani Centre for Environmental Sciences, Manonmanium Sundaranar Univ., Alwarkurichi 627412, TN.

#### REFERENCES

ARUNACHALAM, M., J.A. JOHNSON, S.N. SATHYANARAYANAPPA.

A. SANKARANARAYANAN & R. SORANAM (1998):
Economically important cultivable/ornamental fishes from Hemavathi and Ekachi rivers in South Karnataka.
Workshop report on Germplasm inventorisation and gene banking of freshwater fishes, National Bureau of Fish Genetic Resources, Lucknow.

LAZARUS, R.J., V. ARIVUDAI NABMI & P. SITARAMI REDDY (1988): A checklist of the fishes from the streams of Javadi Hills, with notes on the unique catching method. 'Pari'. *Matsya* 14: 47-52.

Menon, A.G.K. (1992): Conservation of freshwater fishes of peninsular India. Final report submitted to Ministry of Environment and Forests (unpubl.). 31 pp.

MISRA, K.S. (1938): On a collection of fish from the Eastern Ghats. Rec. Indian Mus. XL(3): 255-264.

Molur, Sanjay & Sally Walker (1998): Report of the Workshop on 'Conservation assessment and management plan for freshwater fishes of India'. Zoo Outreach Organisation. Conservation Breeding Specialist Group, India. 156 pp.

Rema Devi, K. (1992): On a small collection of fish from Javadi Hills, North Arcot district, Tamil Nadu. Rec. Zool. Surv. India 91(3-4): 353-360.

TALWAR, P.K. & A.G. JHINGRAN (1991): Inland fishes of India and adjacent countries. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi. Vols. I & II, 1158 pp.

# 21. RANGE EXTENSION OF OSTEOBRAMA COTIO PENINSULARIS SILAS TO KERALA

The genus Osteobrama is found in the Oriental region and is restricted to Pakistan, India, Bangladesh, Myanmar and China (Talwar and Jhingran, 1991). This genus is characterised by having a dorsal fin inserted slightly behind pelvic fins with 11 or 12 rays (8 or 9 branched), a strong serrated spine and a long anal fin with 14-36 rays (11-13 branched). The present report of Osteobrama cotio peninsularis is based on two specimens collected from Periyar river, Central Kerala.

## Osteobrama cotio peninsularis Silas

**Distinguishing characters**: D iii-iv 8-9; A iii 28-31; PI 12-14; V i 9.

Body trapezoid and considerably compressed, its depth 2.2 to 2.9 times in standard length; abdominal edge trenchant from base of pelvic fins to anal fin, but rounded in front of pelvic fins. Mouth small; barbels absent. Dorsal spine weak and serrated. Scales small; lateral

line with 55 to 60 scales; scale-rows 7½ to 9½ between lateral line and base of pelvic fins; predorsal scales 21-24.

Osteobrama cotio peninsularis can be easily identified from its closely related subspecies by the presence of fewer branched rays in the anal fin, less than  $10\frac{1}{2}$  scale-rows between lateral line and pelvic fin, greater number of lateral line scales and lesser number of pre-dorsal scales. It can be distinguished from O. cotio cotio in the lesser number of branched rays in the anal fin, less than  $10\frac{1}{2}$  scale-rows between lateral line and pelvic fin; and it can also be distinguished from O. cotio cunma by the presence of greater number of lateral line scales and fewer pre-dorsal scales.

Geographic distribution: Peninsular India: Maharashtra, Orissa, Andhra Pradesh and Kerala.

**Remarks:** The genus *Osteobrama* is represented by seven species in India, of which *O. bakeri* is endemic to Kerala. *O. bakeri* is the